

01/24

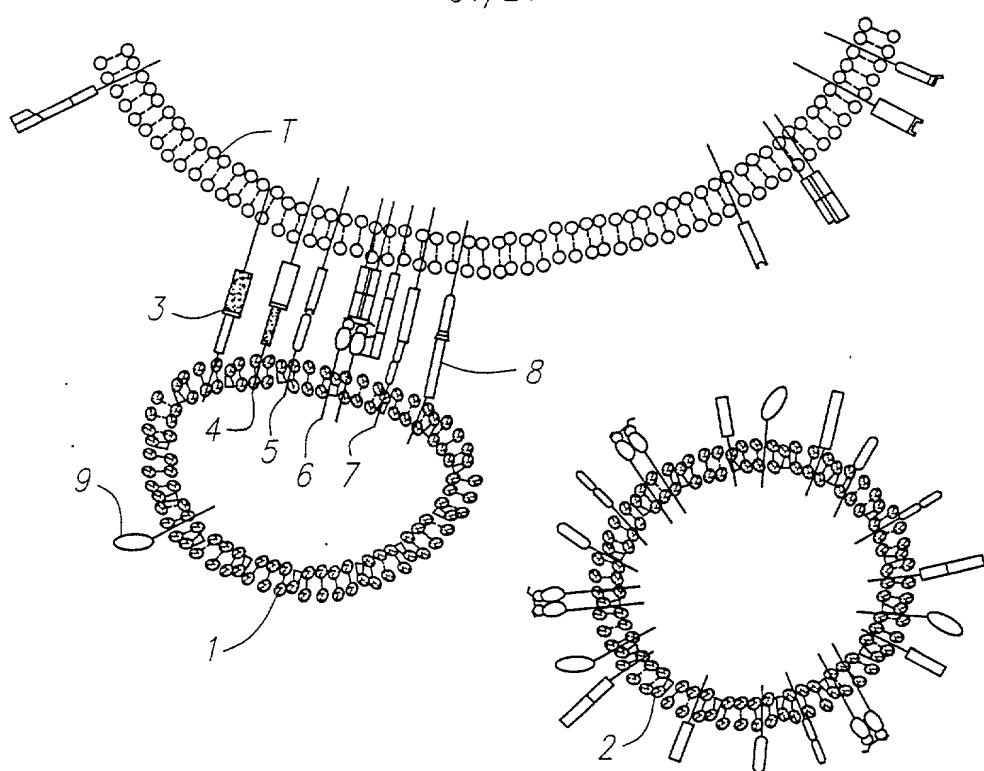


FIG. 1

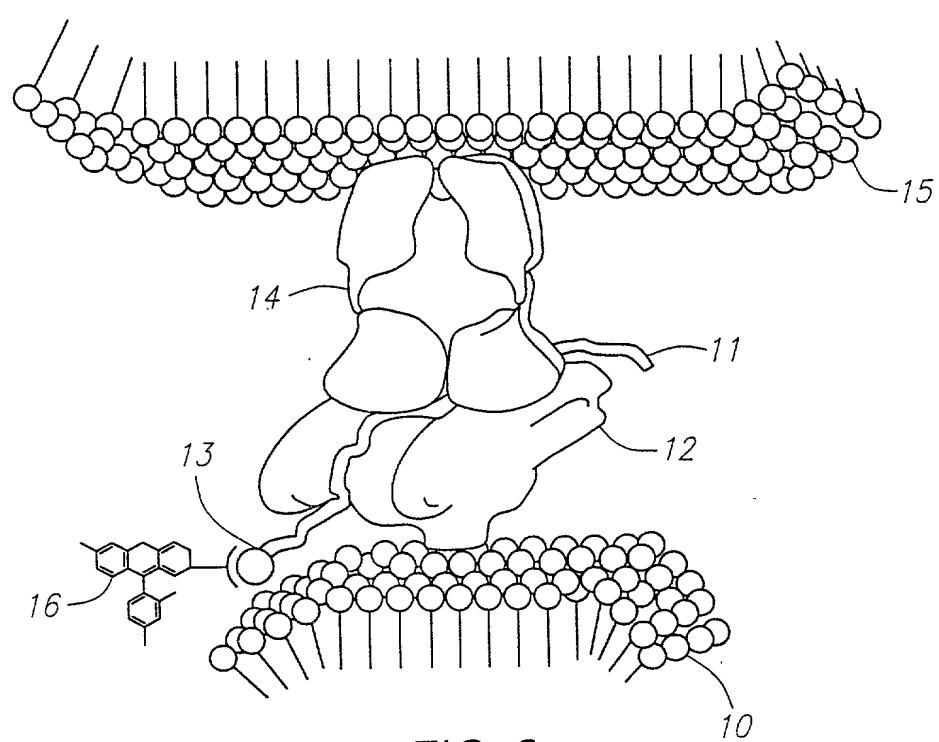


FIG. 2

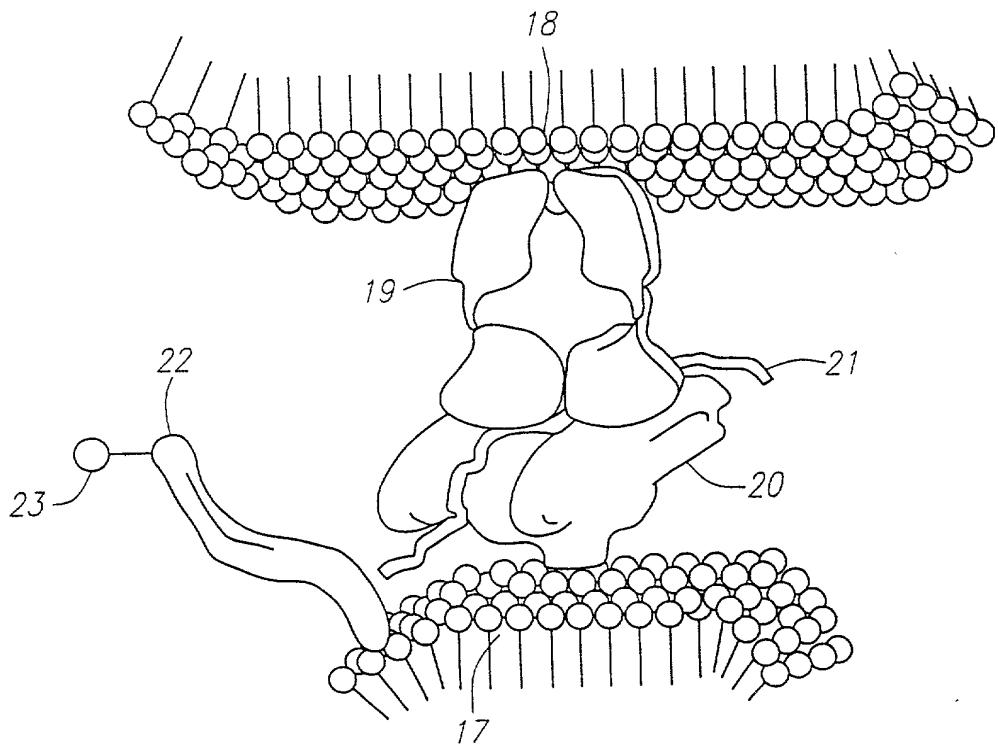


FIG. 3

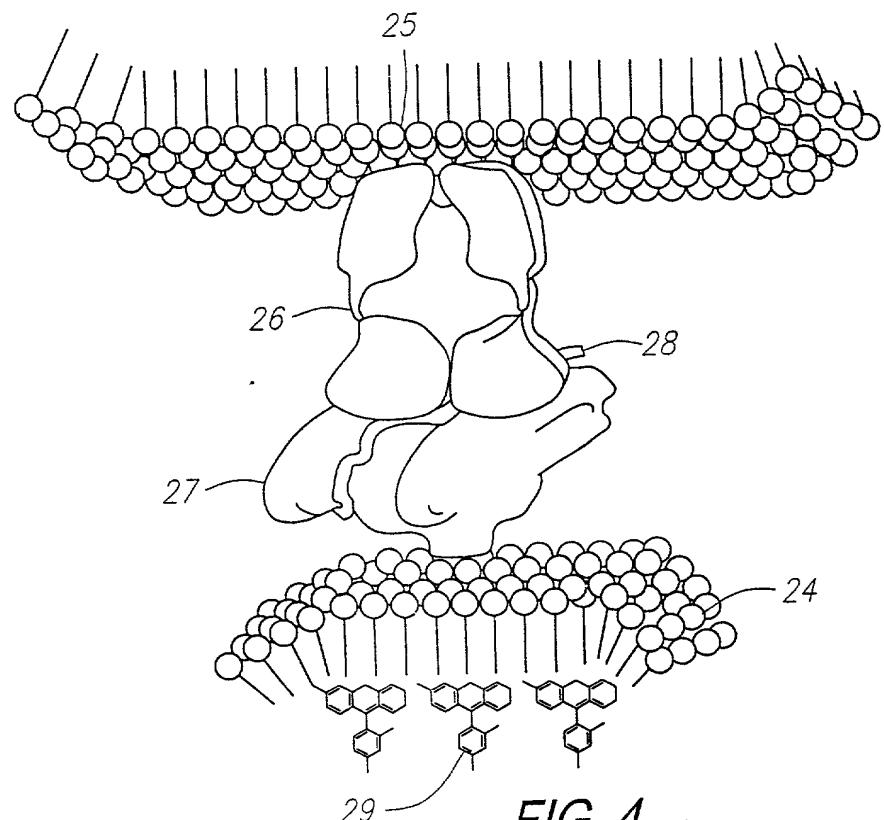
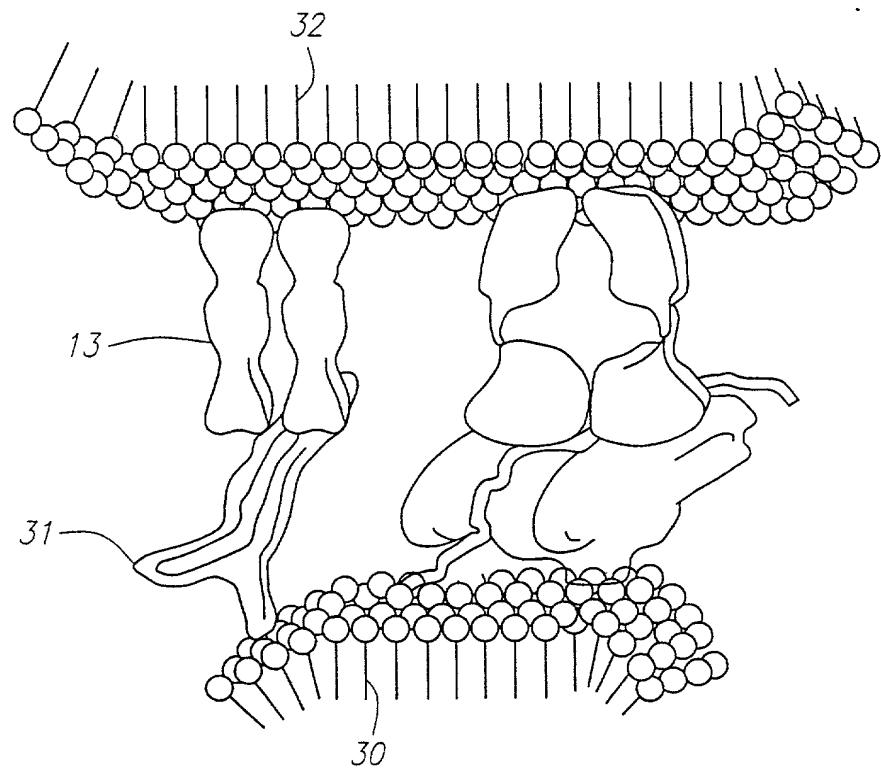


FIG. 4



*FIG. 5*

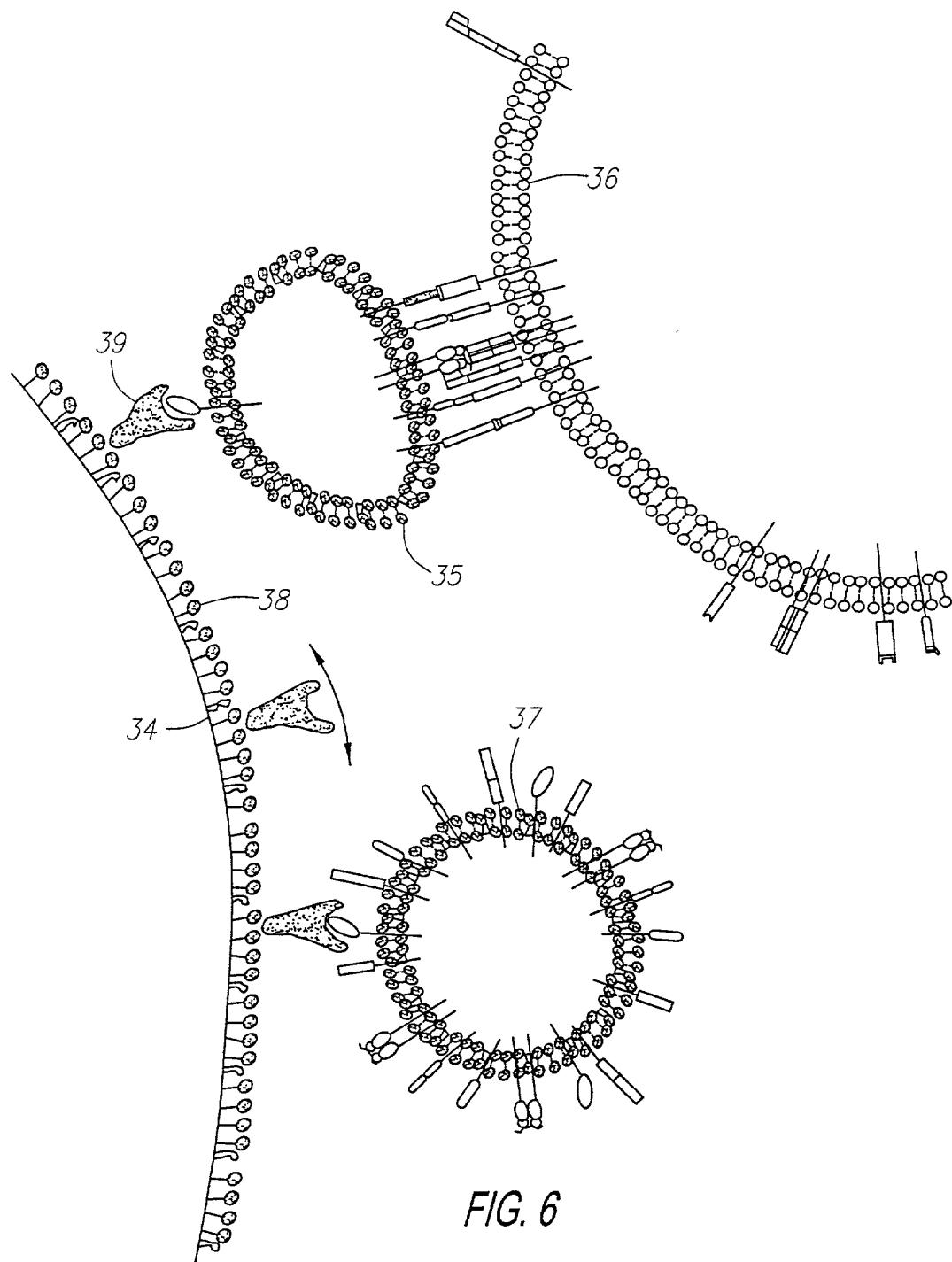


FIG. 6

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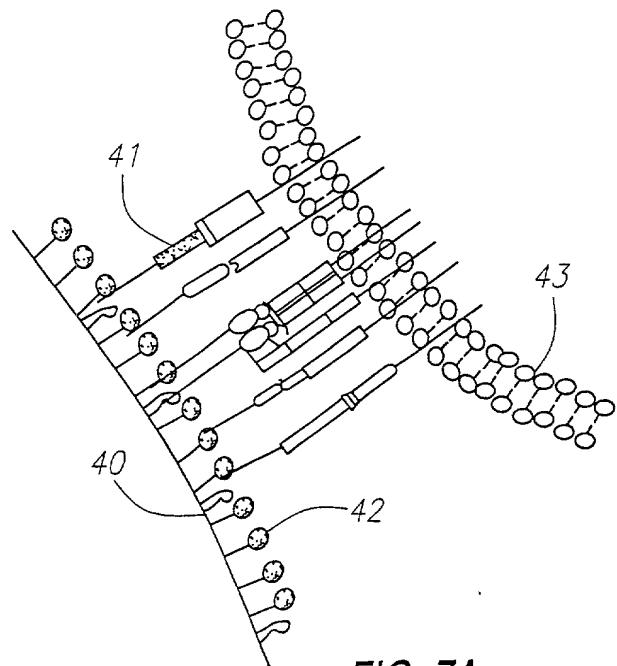


FIG. 7A

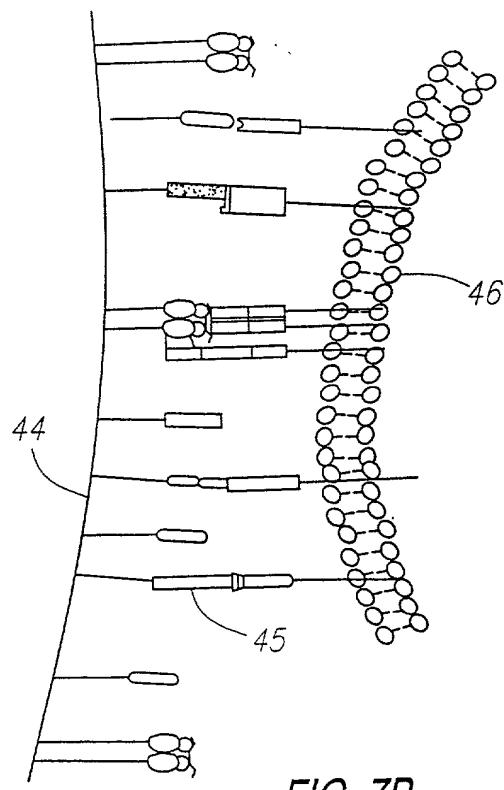


FIG. 7B

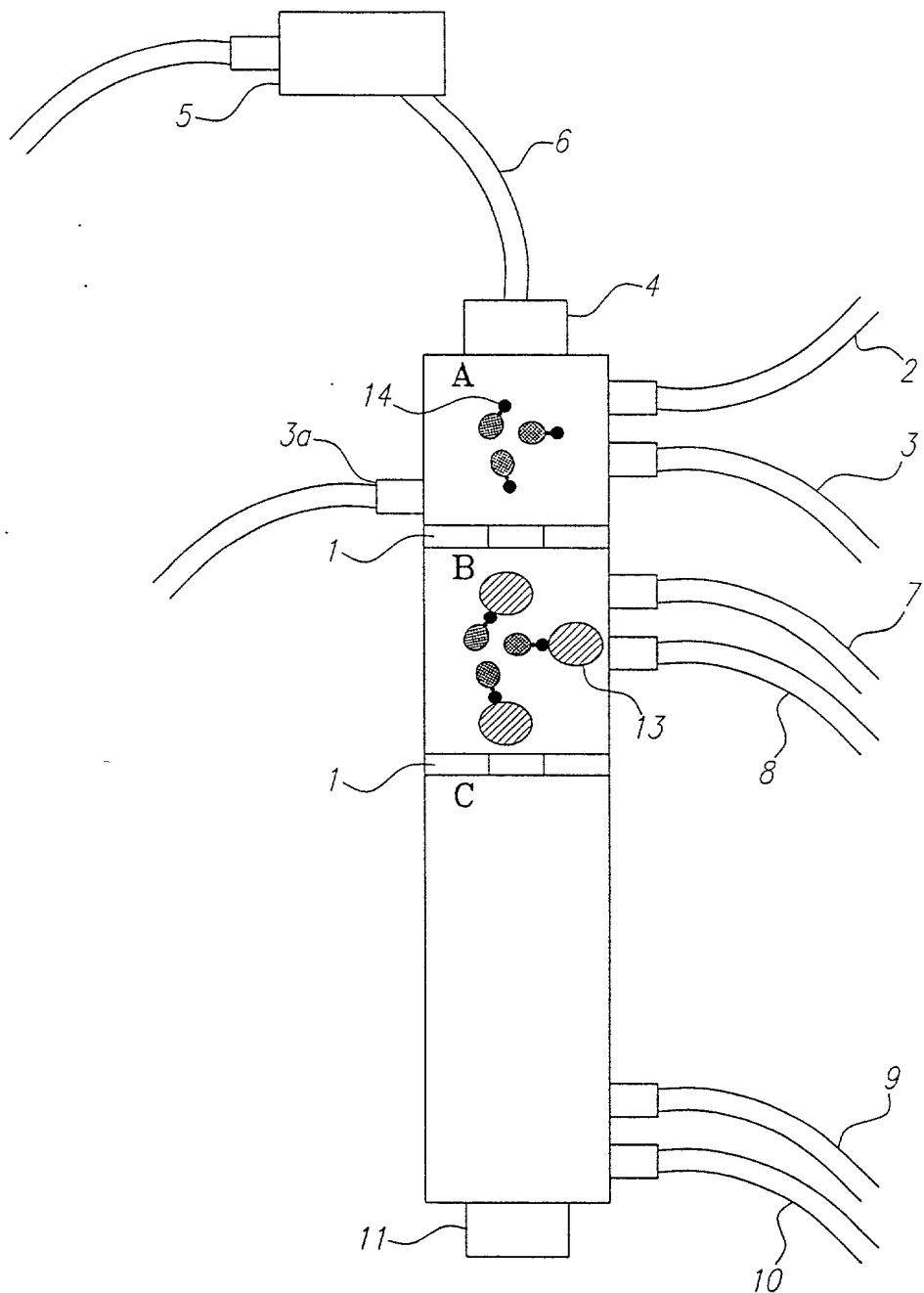


FIG. 8

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AG111.207 T-T HYBRIDOMA  
I-A<sup>s</sup>/OVA<sup>323-336</sup> SPECIFIC

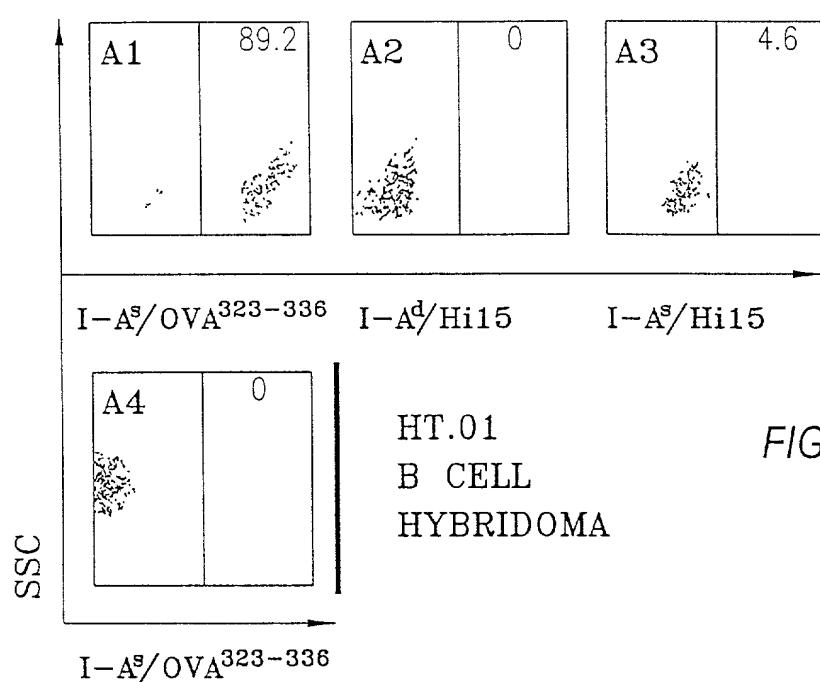


FIG. 9A

8D051.15 T-T HYBRIDOMA  
I-A<sup>d</sup>/OVA<sup>323-336</sup> SPECIFIC

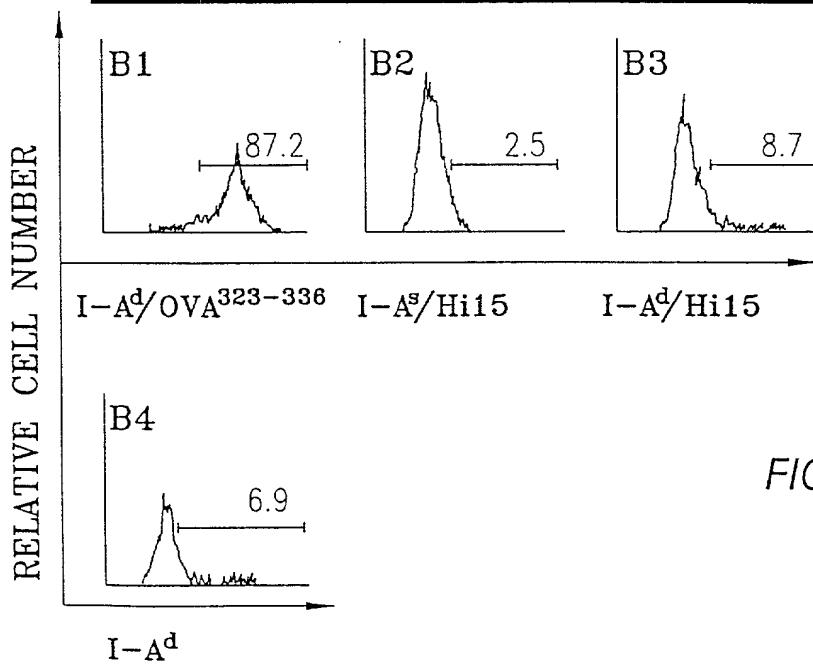


FIG. 9B

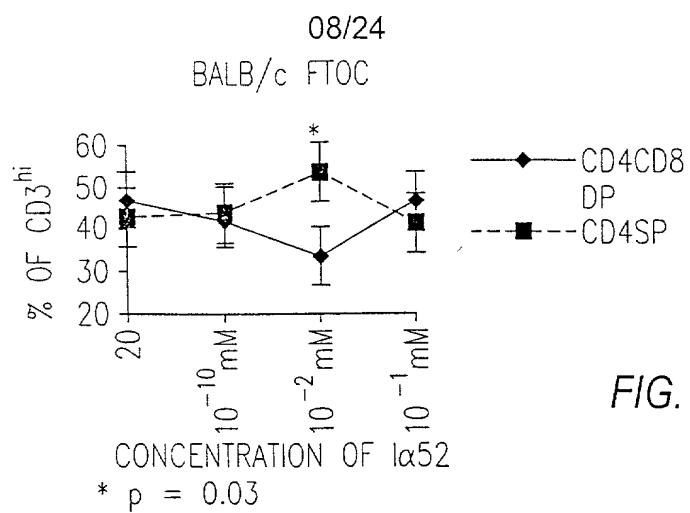


FIG. 10A

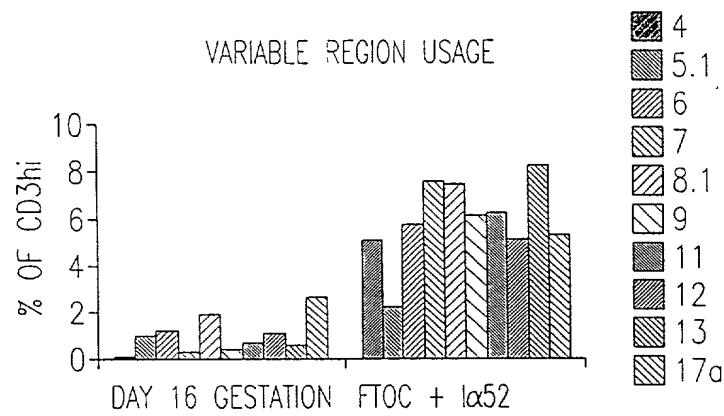


FIG. 10B

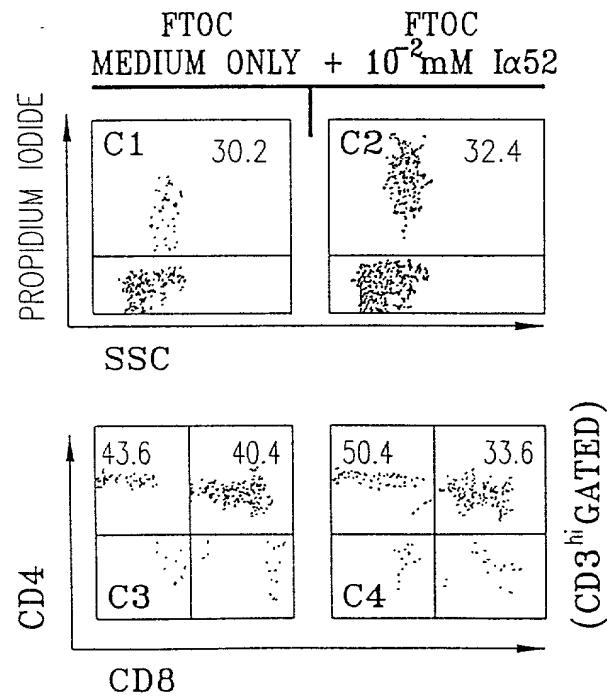


FIG. 10C

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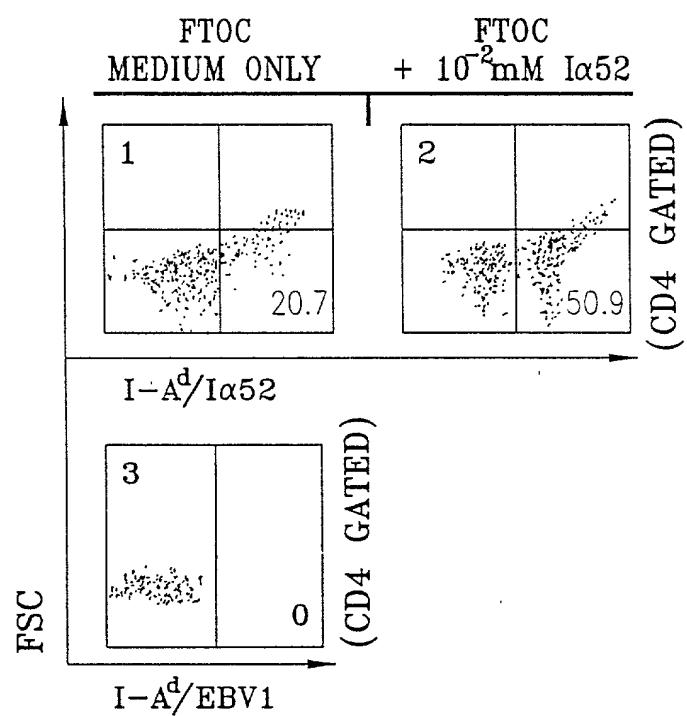
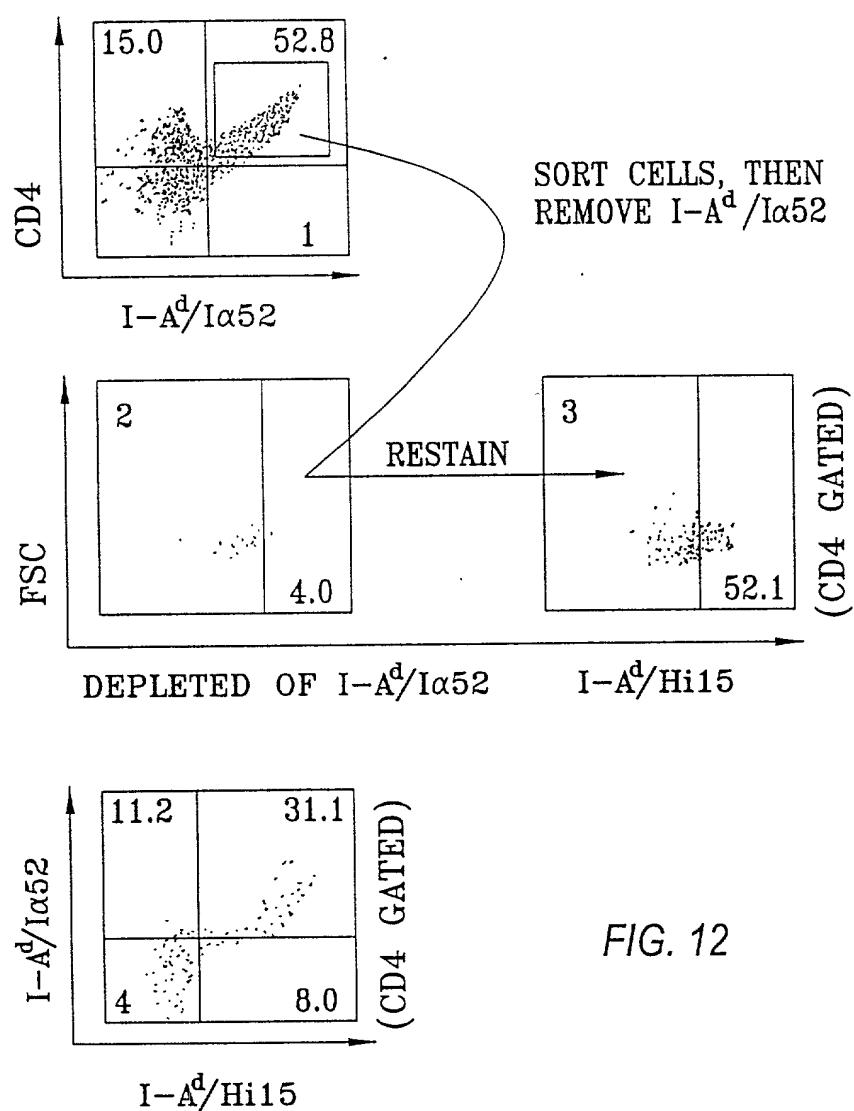


FIG. 11

I $\alpha$ 52 SUPPLEMENTED FTOC  
Hi15 EXPANDED LINE



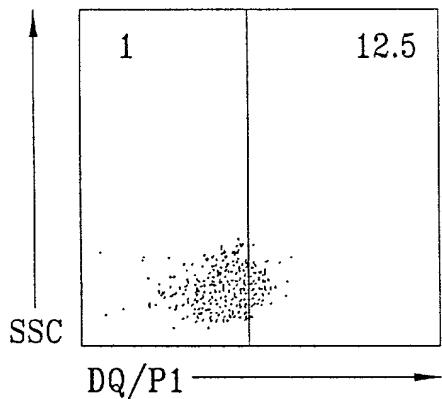


FIG. 13A

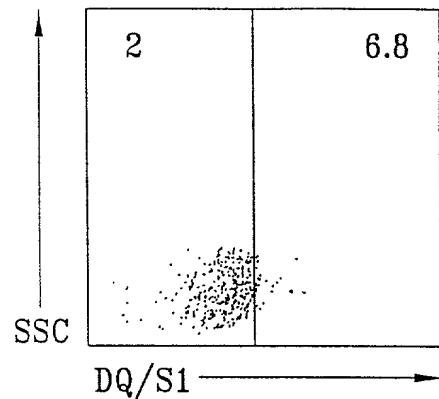


FIG. 13B

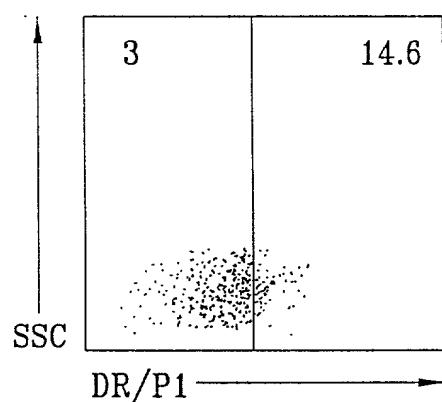


FIG. 13C

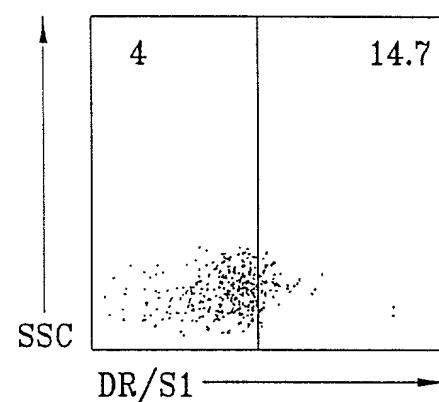


FIG. 13D

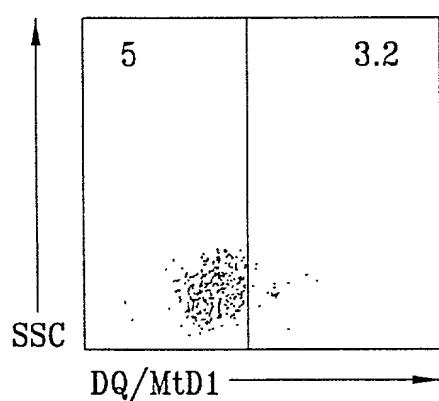
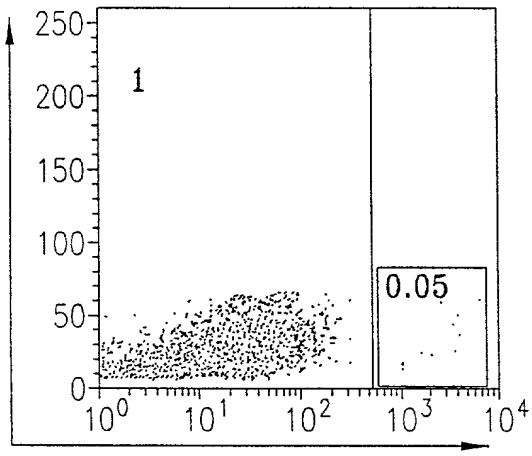
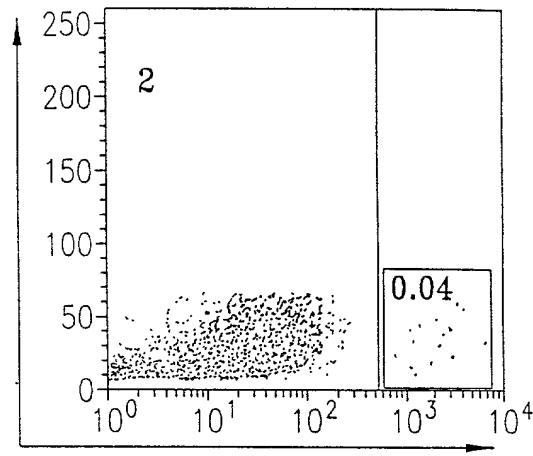


FIG. 13E



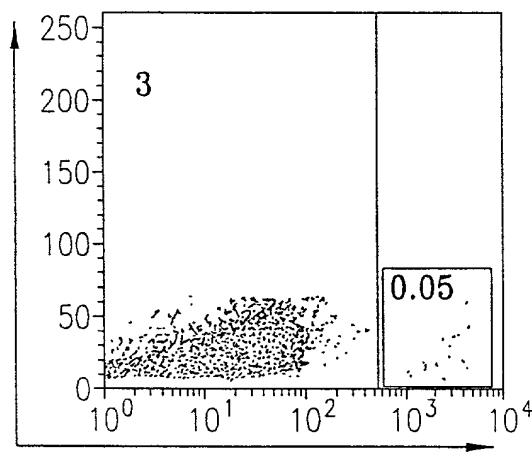
M61-1

FIG. 14A



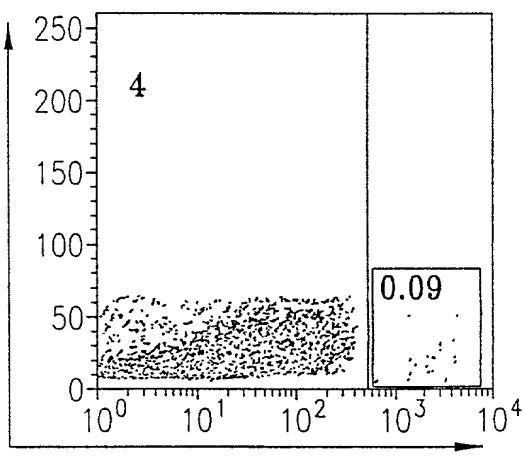
M61-1\*

FIG. 14B



M61-2

FIG. 14C



M61-2\*

FIG. 14D

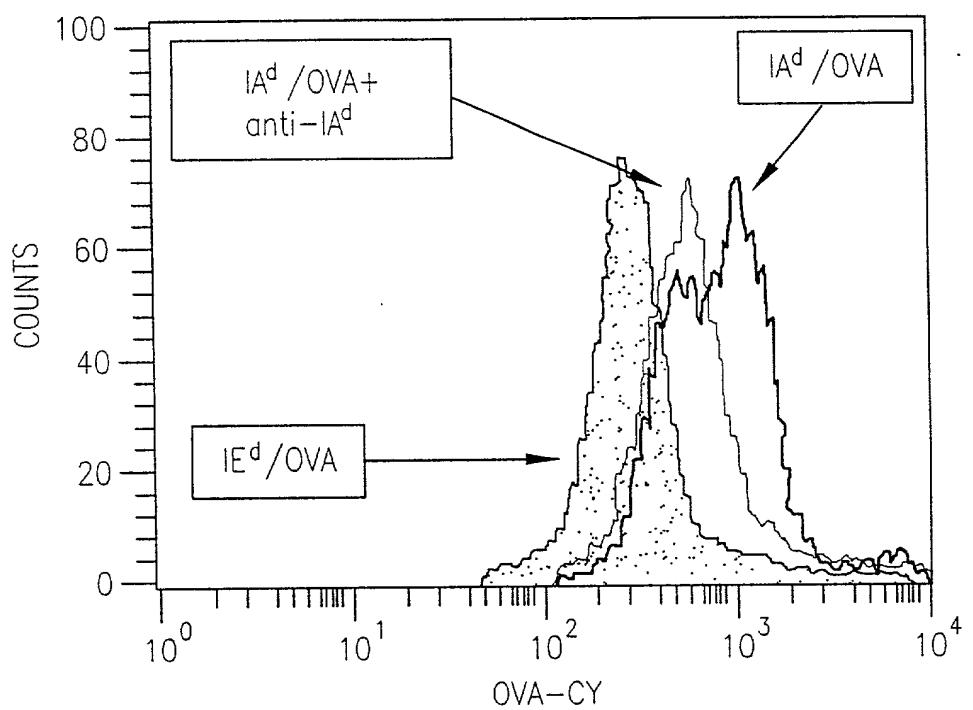


FIG. 15

Fig 16A

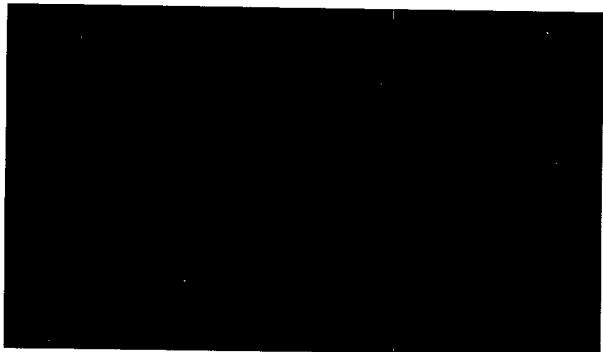


Fig 16B

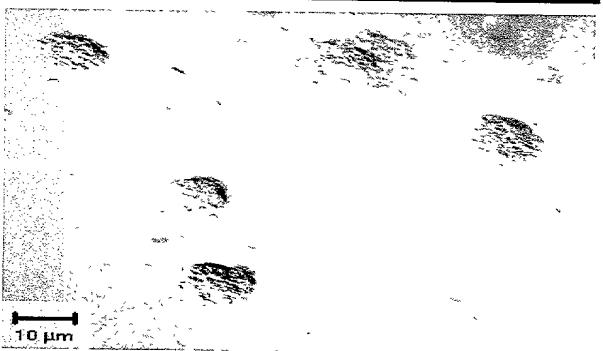
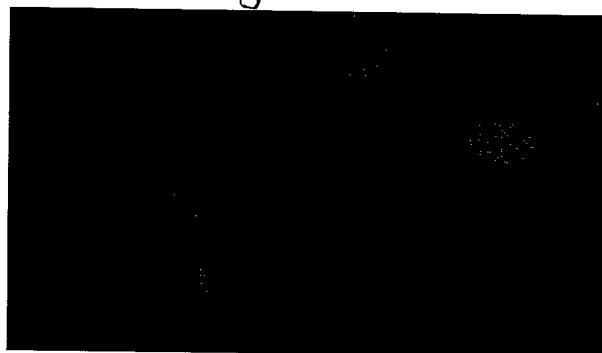


Fig 16C

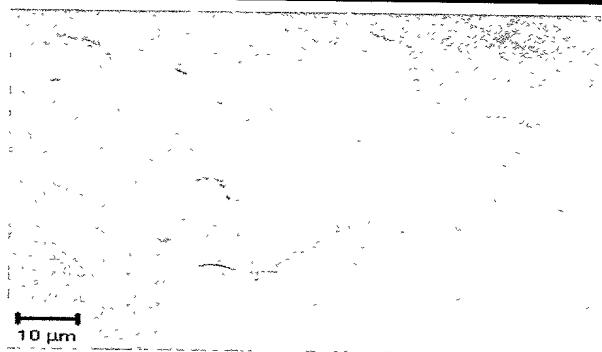


Fig 16D

Fig 17A



Fig 17B

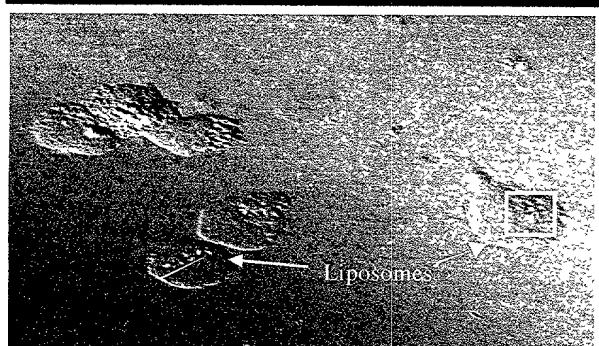
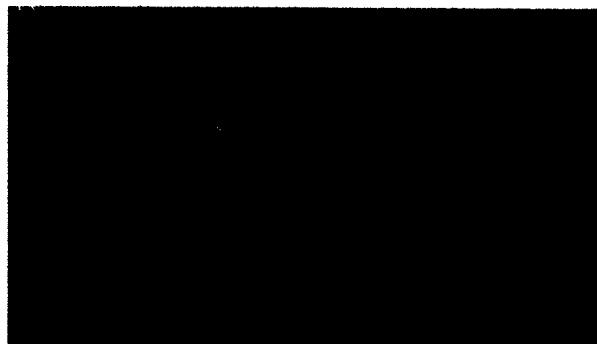


Fig 17C

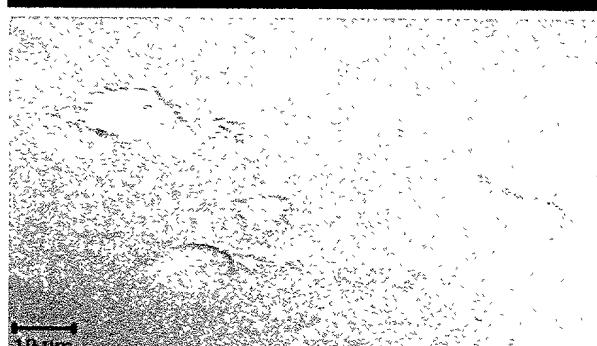


FIG 17D

Fig 18A

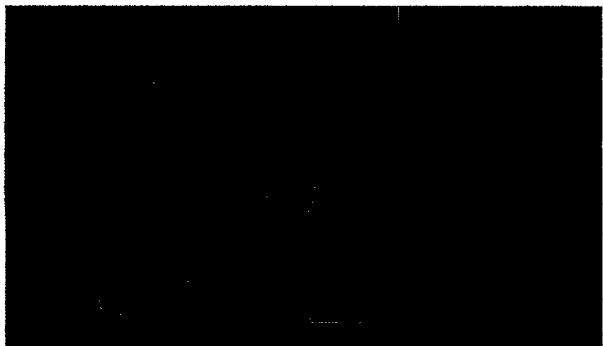


Fig 18B

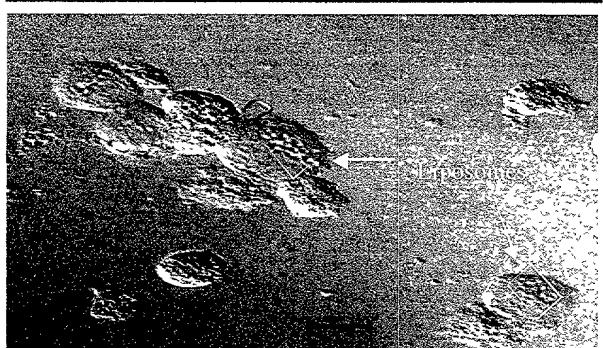


Fig 18C

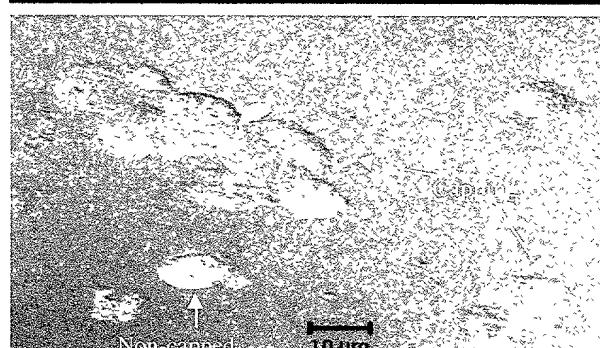


Fig. 18D

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FIG. 19A.

16

24

RT  
pH7

37°C  
pH 5

FIG. 19B.

200 20 2 0.1x

200 20 2 0.1x

FIG. 19C.

16

24

RT

pH7

37oC

pH5

FIG. 19D.

70 10 1x

70 10 1x

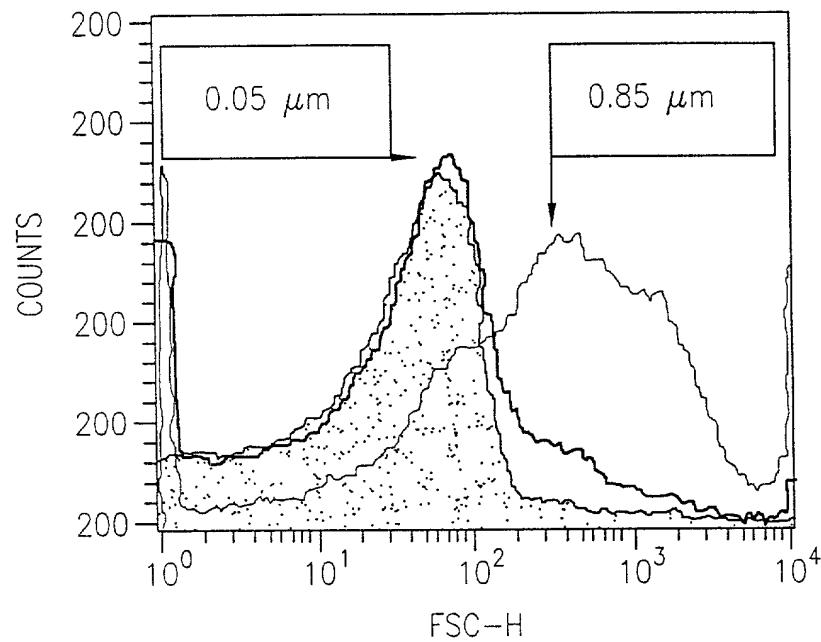


FIG. 20

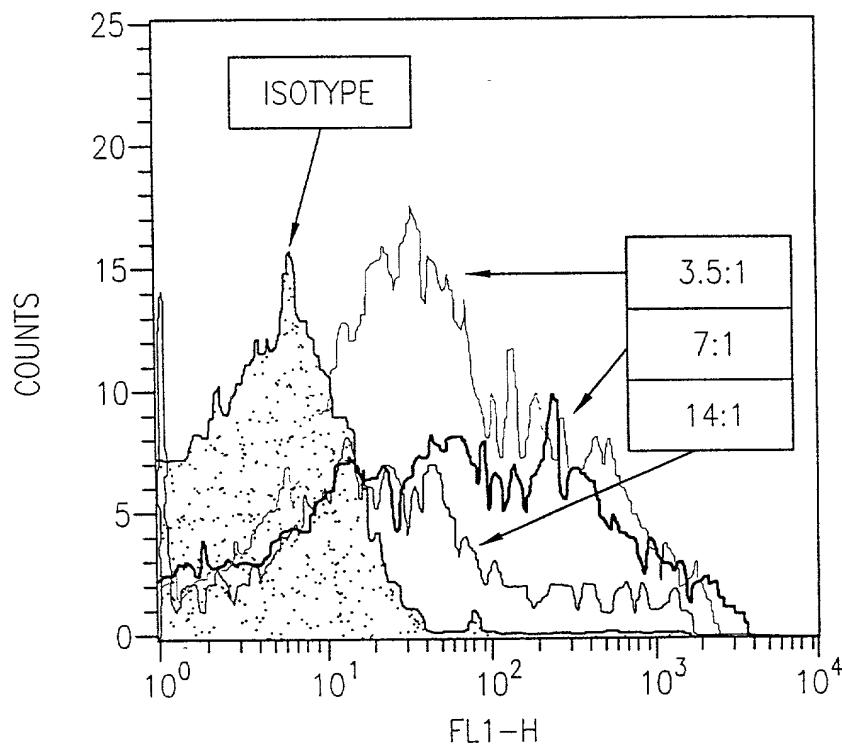


FIG. 21

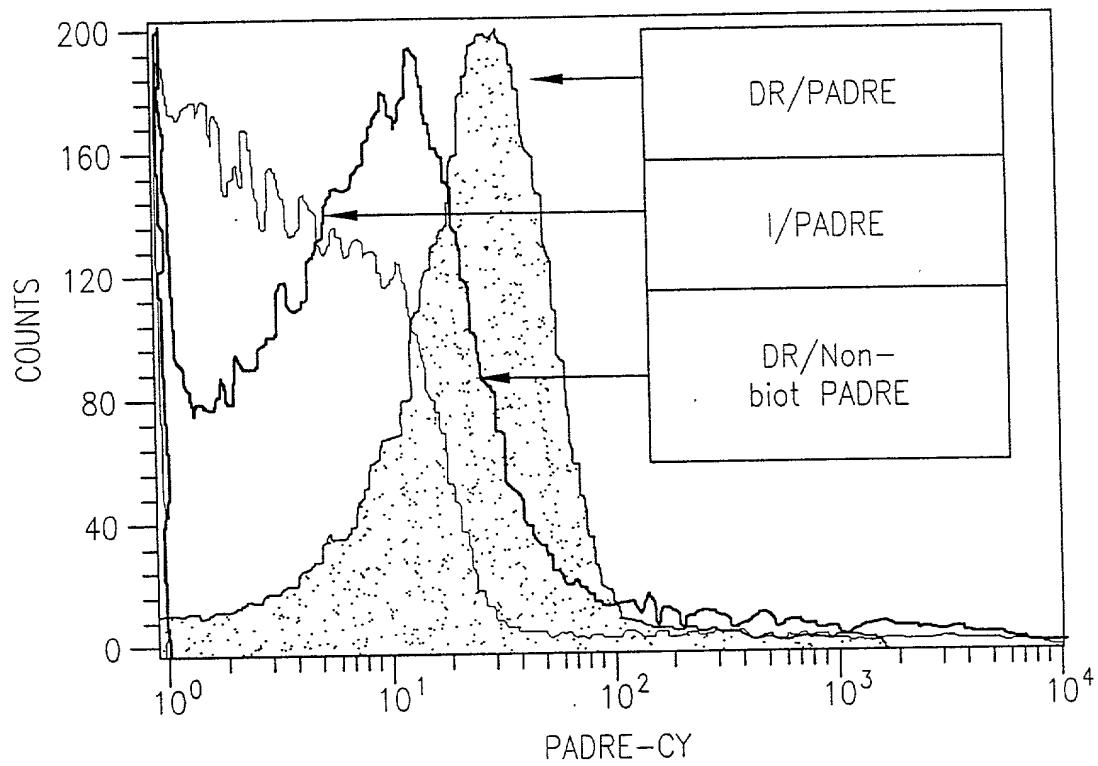


FIG. 22

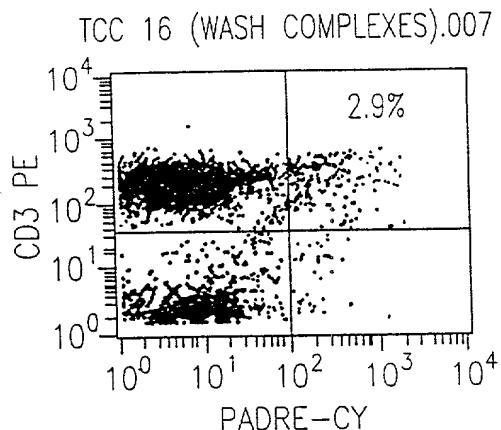


FIG. 23A

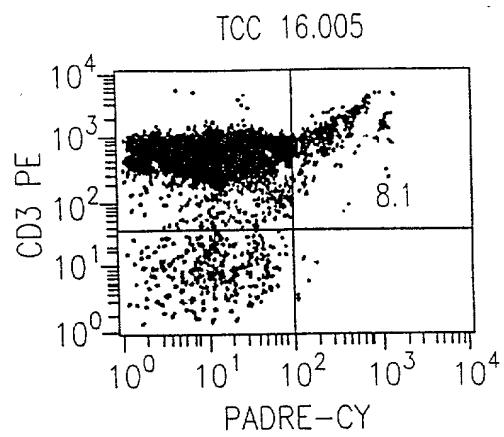


FIG. 23B

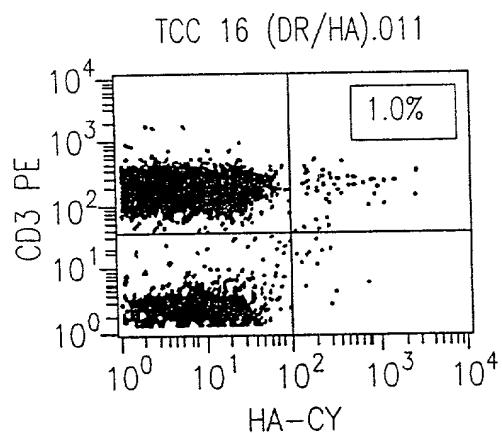


FIG. 23C

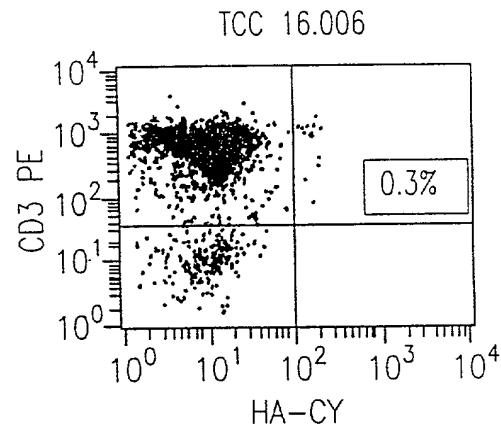


FIG. 23D

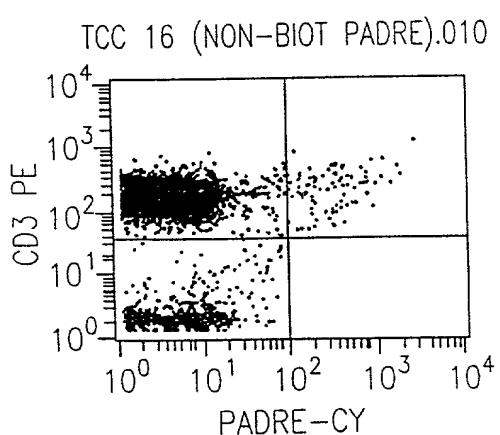


FIG. 23E

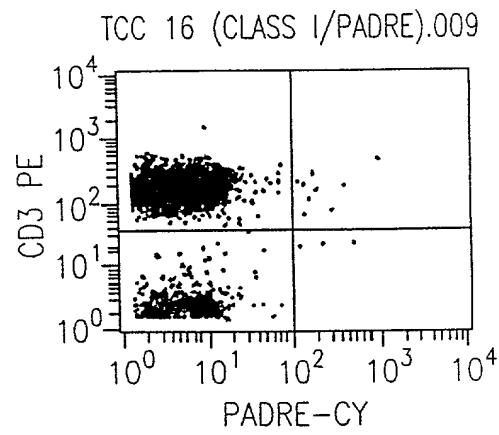


FIG. 23F

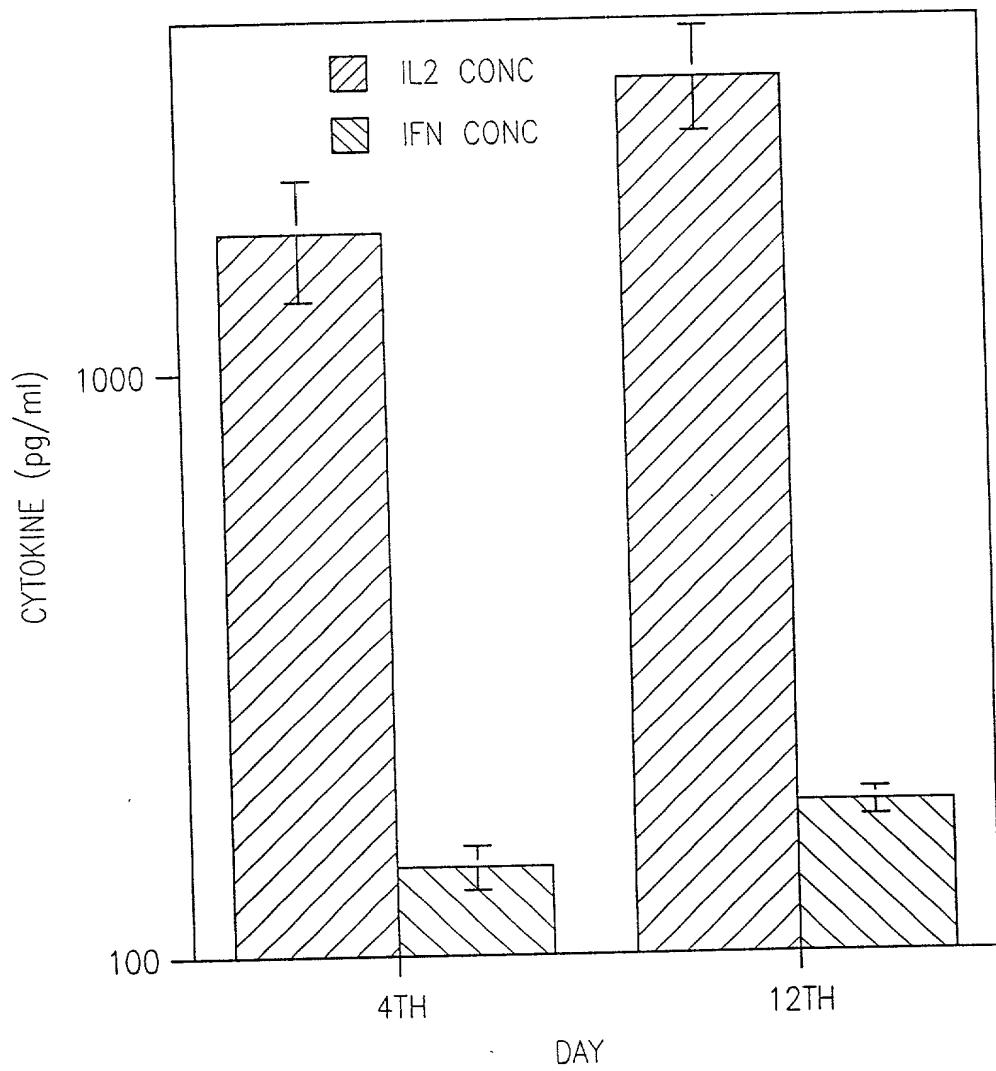


FIG. 24

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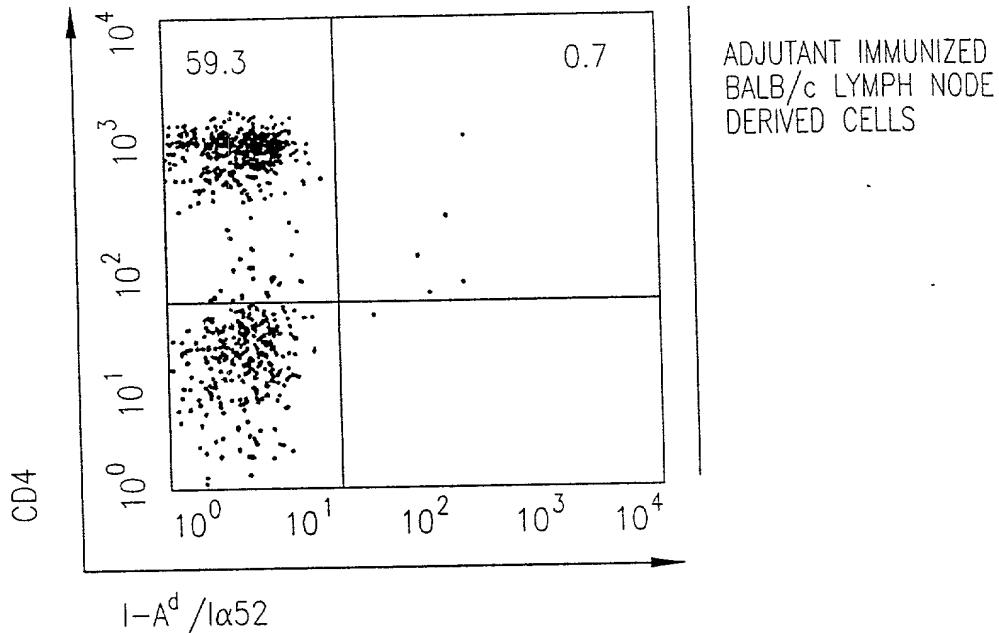


FIG. 25A

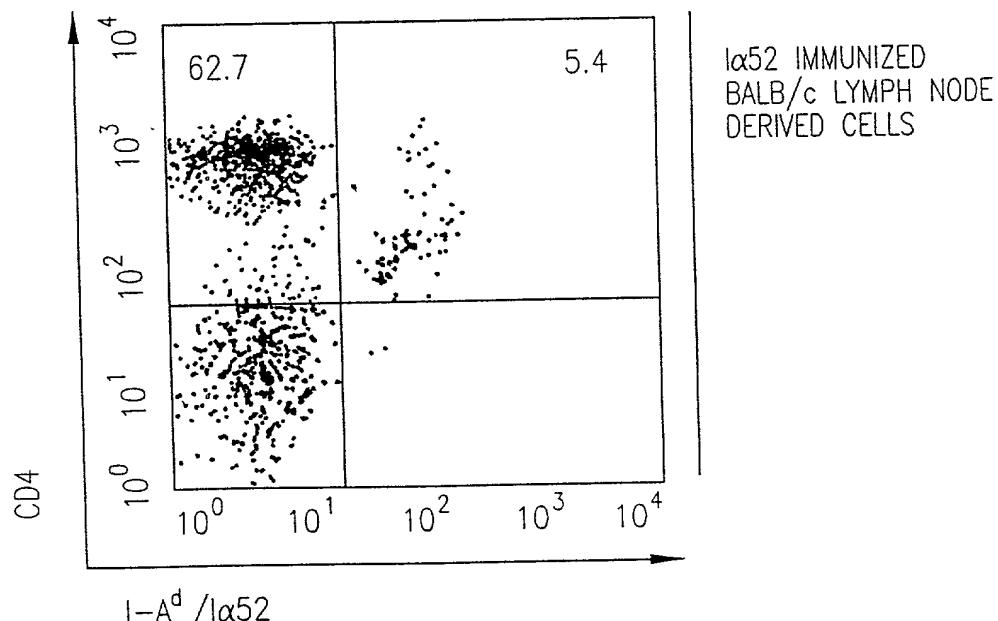


FIG. 25B

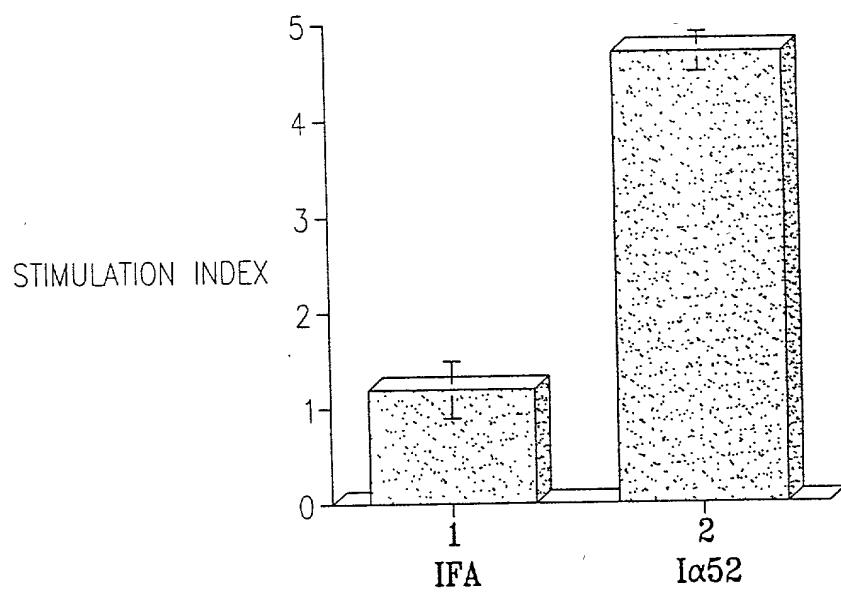
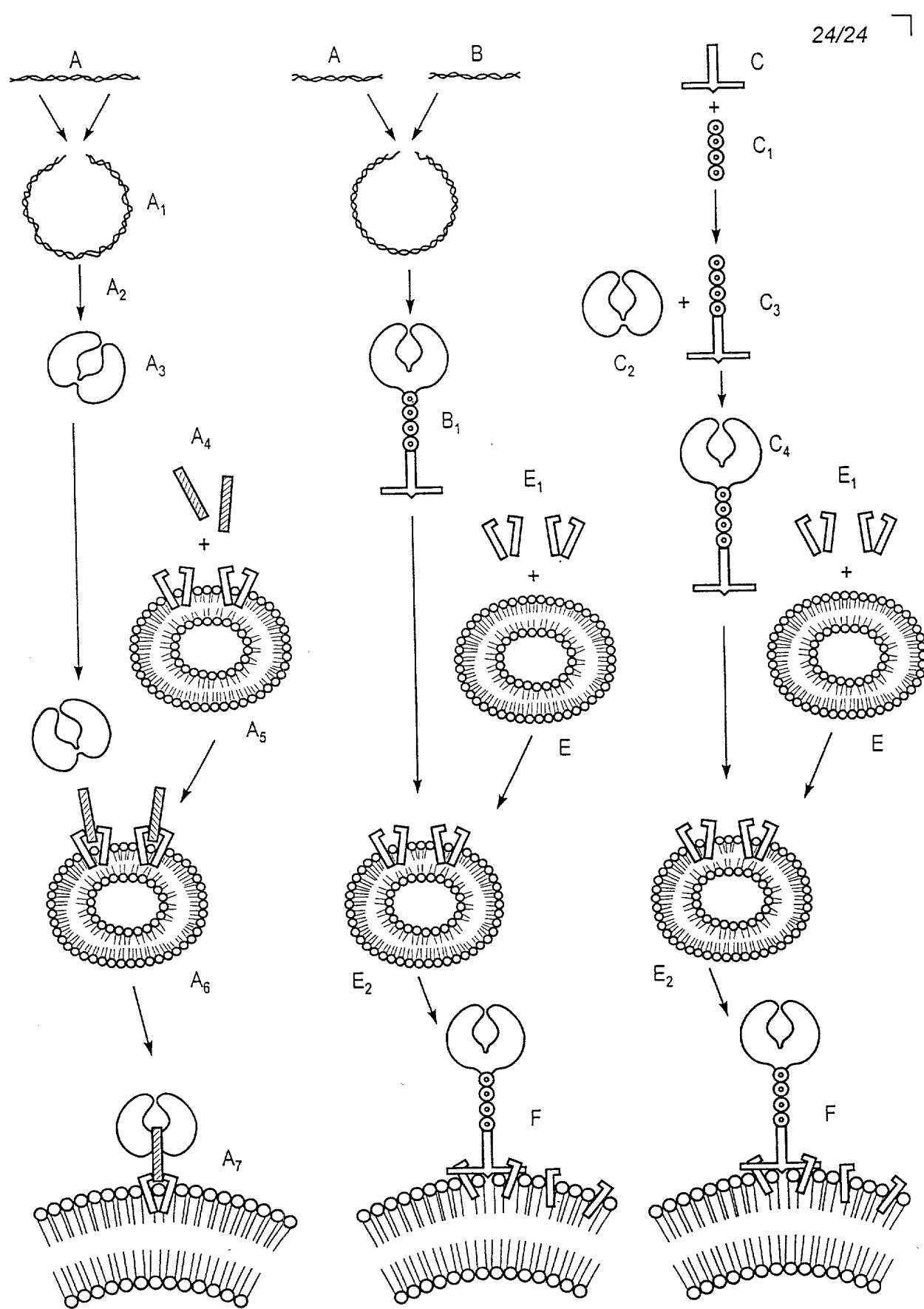


FIG. 26



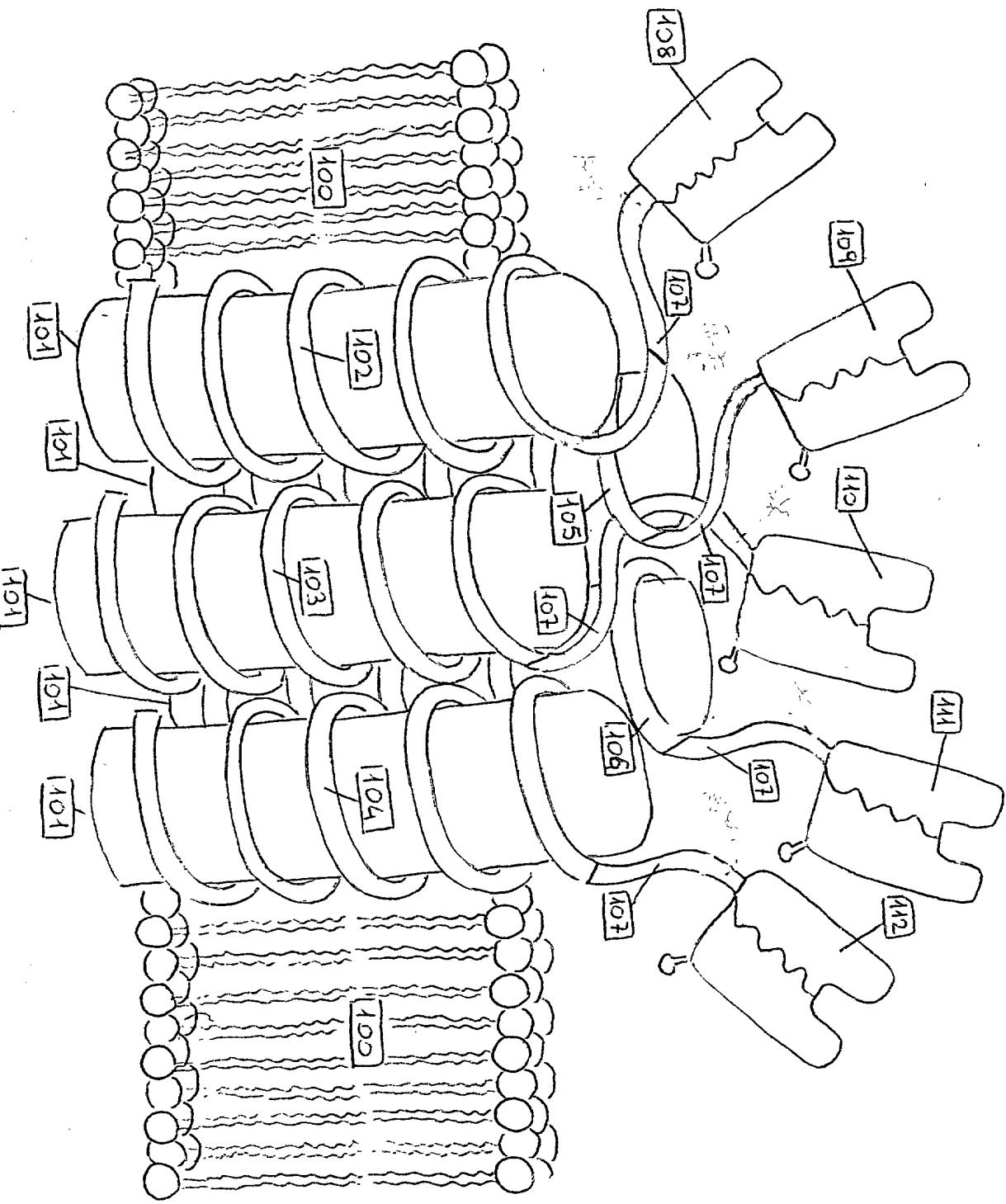


Fig 2

B7.1-CTB construct translation DNA-PROTEIN

M G H T R R Q G T S P S K C P Y L N F F  
atg ggc cac aca cgg agg cag gga aca tca cca tcc aag tgt cca tac ctc aat ttc ttt

Q L L V L A G L S H F C S G V I H V T K  
cag ctc ttg gtg ctg gct ctt tct cac ttc tgt tca ggt gtt atc cac gtg acc aag

E V K E V A T L S C G H N V S V E E L A  
gaa gtg aaa gaa gtg gca acg ctg tcc tgt ggt cac aat gtt tct gtt gaa gag ctg gca

Q T R I Y W Q K E K K M V L T M M S G D  
caa act cgc atc tac tgg caa aag gag aag aaa atg gtg ctg act atg atg tct ggg gac

M N I W P E Y K N R T I F D I T N N L S  
atg aat ata tgg ccc gag tac aag aac cgg acc atc ttt gat atc act aat aac ctc tcc

I V I L A L R P S D E G T Y E C V V L K  
att gtg atc ctg gct ctg cgc cca tct gac gag ggc aca tac gag tgt gtt ctg aag

Y E K D A F K R E H L A E V T L S V K A  
tat gaa aaa gac gct ttc aag cgg gaa cac ctg gct gaa gtg acg tta tca gtc aaa gct

D F P T P S I S D F E I P T S N I R R I  
gac ttc cct aca cct agt ata tct gac ttt gaa att cca act tct aat att aga agg ata

I C S T S G G F P E P H L S W L E N G E  
att tgc tca acc tct gga ggt ttt cca gag cct cac ctc tcc tgg ttg gaa aat gga gaa

E L N A I N T T V S Q D P E T E L Y A V  
gaa tta aat gcc atc aac aca aca gtt tcc caa gat cct gaa act gag ctc tat gct gtt

S E F G G S G G S A T P Q N I T D L C  
agc gaa ttc ggc ggc tcc ggt ggt agc gcc aca cct caa aat att act gat ttg tgt

A E Y H N T Q I H T L N D K I F S Y T E  
gca gaa tac cac aac aca aca ata cat acg cta aat gat aag ata ttt tcg tat aca gaa

S L A G K R E M A I I T F K N G A T F Q  
tct cta gct gga aaa aga gag atg gct atc att act ttt aag aat ggt gca act ttt caa

V E V P G S Q H I D S Q K K A I E R M K  
gta gaa gta cca ggt agt caa cat ata gat tca caa aaa aaa gcg att gaa agg atg aag

D T L R I A Y L T E A K V E K L C V W N  
gat acc ctg agg att gca tat ctt act gaa gct aaa gtc gaa aag tta tgt gta tgg aat

N K T P H A I A A I S M A N \*  
aat aaa acg cct cat gcg att gcc gca att agt atg gca aat taa

Fig 29

B7.2-CTB construct translation DNA-PROTEIN

M G L S N I L F V M A F L L S G A A P L  
 atg gga ctg agt aac att ctc ttt gtg atg gcc ttc ctg ctc tct ggt gct gct cct ctg  
 K I Q A Y F N E T A D L P C Q F A N S Q  
 aag att caa gct tat ttc aat gag act gca gac ctg cca tgc caa ttt gca aac tct caa  
 N Q S L S E L V V F W Q D Q E N L V L N  
 aac caa agc ctg agt gag cta gta gta ttt tgg cag gac cag gaa aac ttg gtt ctg aat  
 E V Y L G K E K F D S V H S K Y M G R T  
 gag gta tac tta ggc aaa gag aaa ttt gac agt gtt cat tcc aag tat atg ggc cgc aca  
 S F D S D S W T L R L H N L Q I K D K G  
 agt ttt gat tcg gac agt tgg acc ctg aga ctt cac aat ctt cag atc aag gac aag ggc  
 L Y Q C I I H H K K P T G M I R I H Q M  
 ttg tat caa tgt atc atc cat cac aaa aag ccc aca gga atg att cgc atc cac cag atg  
 N S E L S V L A N F S Q P E I V P I S N  
 aat tct gaa ctg tca gtg ctt gct aac ttc agt caa cct gaa ata gta cca att tct aat  
 I T E N V Y I N L T C S S I H G Y P E P  
 ata aca gaa aat gtg tac ata aat ttg acc tgc tca tct ata cac ggt tac cca gaa cct  
 K K M S V L L R T K N S T I E Y D G I M  
 aag aag atg agt gtt ttg cta aga acc aag aat tca act atc gag tat gat ggt att atg  
 Q K S Q D N V T E L Y D V S I S L S V S  
 cag aaa tct caa gat aat gtc aca gaa ctg tac gac gtt tcc atc agc ttg tct gtt tca  
 F P D V T S N M T I F C I L E T D K T R  
 ttc cct gat gtt acg agc aat atg acc atc ttc tgt att ctg gaa act gac aag acg cgg  
 L L S S P F S I E L E D P Q P P D H E  
 ctt tta tct tca cct ttc tct ata gag ctt gag gac cct cag cct ccc cca gac cac gaa  
 F G G S G G S A T P Q N I T D L C A E  
 ttc ggc ggc tcc ggt ggt agc gcc aca cct caa aat att act gat ttg tgt gca gaa  
 Y H N T Q I H T L N D K I F S Y T E S L  
 tac cac aac aca caa ata cat acg cta aat gat aag ata ttt tcg tat aca gaa tct cta  
 A G K R E M A I I T F K N G A T F Q V E  
 gct gga aaa aga gag atg gct atc att act ttt aag aat ggt gca act ttt caa gta gaa  
 V P G S Q H I D S Q K K A I E R M K D T  
 gta cca ggt agt caa cat ata gat tca caa aaa aaa ggc att gaa agg atg aag gat acc  
 L R I A Y L T E A K V E K L C V W N N K  
 ctg agg att gca tat ctt act gaa gct aaa gtc gaa aag tta tgt gta tgg aat aat aaa  
 T P H A I A A I S M A N \*  
 acg cct cat gcg att gcc gca att agt atg gca aat taa

Fig 30

DRA1-CTB construct translation PROTEIN-DNA

M A I S G V P V L G F F I I A V L M S A  
 ATG GCC ATA AGT GGA GTC CCT GTG CTA GGA TTT TTC ATC ATA GCT GTG CTG ATG AGC GCT  
 Q E S W A I K E E H V I I Q A E F Y L N  
 CAG GAA TCA TGG GCT ATC AAA GAA GAA CAT GTG ATC ATC CAG GCC GAG TTC TAT CTG AAT  
 P D Q S G E F M F D F D G D E I F H V D  
 CCT GAC CAA TCA GGC GAG TTT ATG TTT GAC TTT GAT GGT GAT GAG ATT TTC CAT GTG GAT  
 M A K K E T V W R L E E F G R F A S F E  
 ATG GCA AAG AAG GAG ACG GTC TGG CGG CTT GAA GAA TTT GGA CGA TTT GCC AGC TTT GAG  
 A Q G A L A N I A V D K A N L E I M T K  
 GCT CAA GGT GCA TTG GCC AAC ATA GCT GTG GAC AAA GCC AAC CTG GAA ATC ATG ACA AAG  
 R S N Y T P I T N V P P E V T V L T N S  
 CGC TCC AAC TAT ACT CCG ATC ACC AAT GTA CCT CCA GAG GTA ACT GTG CTC ACG AAC AGC  
 P V E L R E P N V L I C F I D K F T P P  
 CCT GTG GAA CTG AGA GAG CCC AAC GTC CTC ATC TGT TTC ATC GAC AAG TTC ACC CCA CCA  
 V V N V T W L R N G K P V T T G V S E T  
 GTG GTC AAT GTC ACG TGG CTT CGA AAT GGA AAA CCT GTC ACC ACA GGA GTG TCA GAG ACA  
 V F L P R E D H L F R K F H Y L P F L P  
 GTC TTC CTG CCC AGG GAA GAC CAC CTT TTC CGC AAG TTC CAC TAT CTC CCC TTC CTG CCC  
 S T E D V Y D C R V E H W G L D E P L L  
 TCA ACT GAG GAC GTT TAC GAC TGC AGG GTG GAG CAC TGG GGC TTG GAT GAG CCT CTT CTC  
 K H W E F D A P S P L P E T T E E F G G  
 AAG CAC TGG GAG TTT GAT GCT CCA AGC CCT CTC CCA GAG ACT ACA GAG GAA TTC GGT GGT  
 S G G S A Q L E W E L Q A L E K E N A Q  
TCC GGT GGT TCC GCG CAG CTG GAA TGG GAA CTG CAG GCG CTG GAA AAA GAA AAC GCG CAG  
 L E W E L Q A L E K E L A Q G G S G G S  
 CTG GAA TGG GAA CTG CAG GCG CTG GAA AAA GAA CTG GCG CAG GGC GGC TCC GGT GGT AGC  
 A T P Q N I T D L C A E Y H N T Q I H  
GCC ACA CCT CAA AAT ATT ACT GAT TTG TGT GCA GAA TAC CAC AAC ACA CAA ATA CAT  
 T L N D K I F S Y T E S L A G K R E M A  
 ACG CTA AAT GAT AAG ATA TTT TCG TAT ACA GAA TCT CTA GCT GGA AAA AGA GAG ATG GCT  
 I I T F K N G A T F Q V E V P G S Q H I  
 ATC ATT ACT TTT AAG AAT GGT GCA ACT TTT CAA GTA GAA GTA CCA GGT AGT CAA CAT ATA  
 D S Q K K A I E R M K D T L R I A Y L T  
 GAT TCA CAA AAA AAA GCG ATT GAA AGG ATG AAG GAT ACC CTG AGG ATT GCA TAT CTT ACT  
 E A K V E K L C V W N N K T P H A I A A  
 GAA GCT AAA GTC GAA AAG TTA TGT GTA TGG AAT AAT AAA ACG CCT CAT GCG ATT GCC GCA  
 I S M A N \*  
 ATT AGT ATG GCA AAT TAA

Fig 31

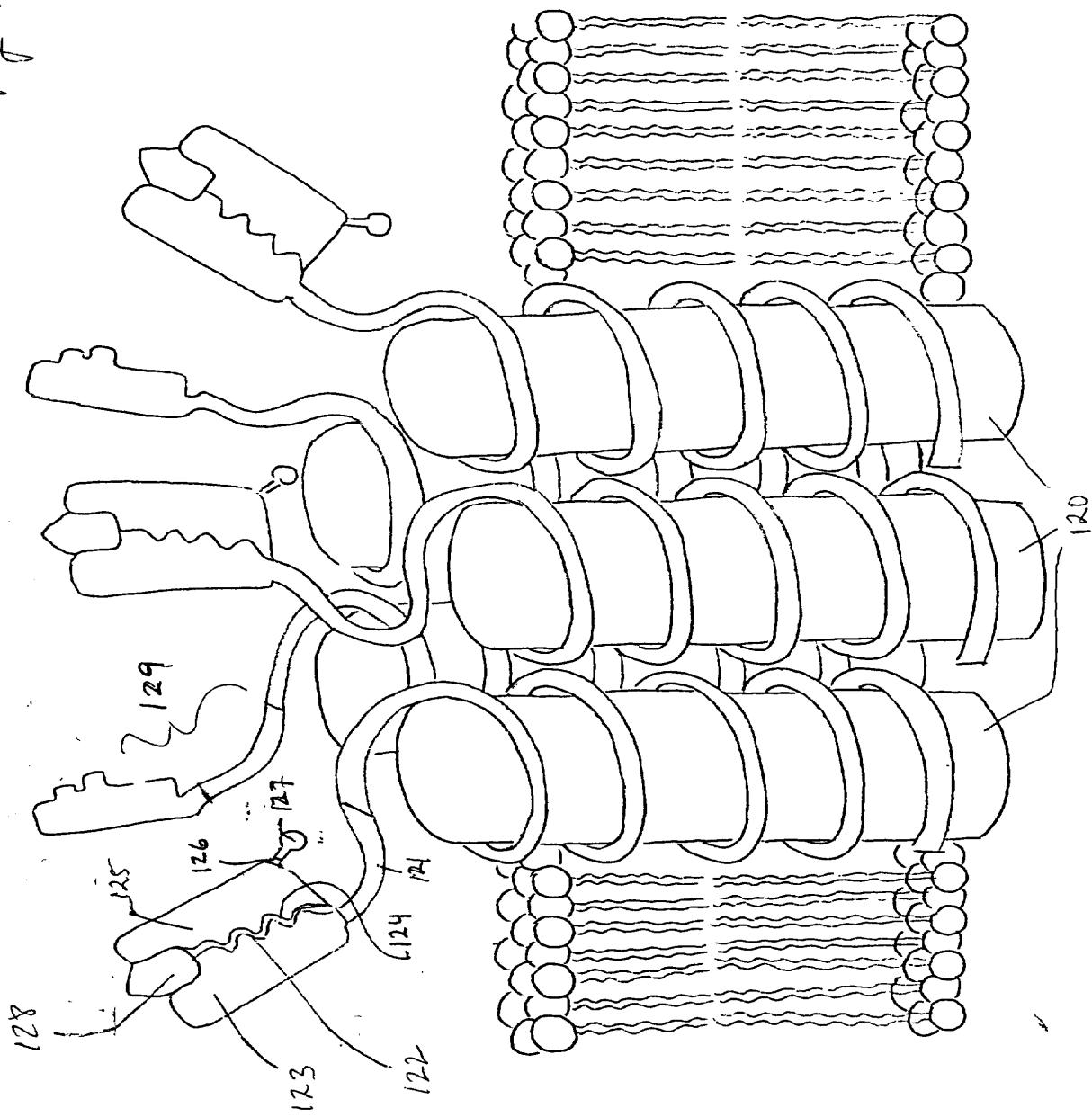
DRB1-biotag construct translation PROTEIN-DNA

1/1 31/11  
 M V C L K F P G G S C M A A L T V T L M  
 ATG GTG TGT CTG AAG TTC CCT GGA GGC TCC TGC ATG GCA GCT CTG ACA GTG ACA CTG ATG  
 61/21 91/31  
 V L S S P L A L A G D T R P R F L E Q V  
 GTG CTG AGC TCC CCA CTG GCT TTG GCT GGG GAC ACC CGA CCA CGT TTC TTG GAG CAG GTT  
 121/41 151/51  
 K H E C H F F N G T E R V R F L D R Y F  
 AAA CAT GAG TGT CAT TTC AAC GGG ACG GAG CGG GTG CGG TTC CTG GAC AGA TAC TTC  
 181/61 211/71  
 Y H Q E E Y V R F D S D V G E Y R A V T  
 TAT CAC CAA GAG GAG TAC GTG CGC TTC GAC AGC GAC GTG GGG GAG TAC CGG GCG GTG ACG  
 241/81 271/91  
 E L G R P D A E Y W N S Q K D L L E Q K  
 CAG CTG GGG CGG CCT GAT GCC GAG TAC TGG AAC AGC CAG AAG GAC CTC CTG GAG CAG AAG  
 301/101 331/111  
 R A A V D T Y C R H N Y G V G E S F T V  
 CGG GCC GCG GTG GAC ACC TAC TGC AGA CAC AAC TAC GGG GTT GGT GAG AGC TTC ACA GTG  
 361/121 391/131  
 Q R R V Y P E V T V Y P A K T Q P L Q H  
 CAG CGG CGA GTC TAT CCT GAG GTG ACT GTG TAT CCT GCA AAG ACC CAG CCC CTG CAG CAC  
 421/141 451/151  
 H N L L V C S V N G F Y P G S I E V R W  
 CAC AAC CTC CTG GTC TGC TCT GTG AAT GGT TTC TAT CCA GGC AGC ATT GAA GTC AGG TGG  
 481/161 511/171  
 F R N G Q E E K T G V V S T G L I Q N G  
 TTC CCG AAC GGC CAG GAA GAG AAG ACT GGG GTG GTG TCC ACA GGC CTG ATC CAG AAT GGA  
 541/181 571/191  
 D W T F Q T L V M L E T V P R S G E V Y  
 GAC TGG ACC TTC CAG ACC CTG GTG ATG CTG GAA ACA GTT CCT CGG AGT GGA GAG GTT TAC  
 601/201 631/211  
 T C Q V E H P S L T S P L T V E W R A R  
 ACC TGC CAA GTG GAG CAC CCA AGC CTG ACG AGC CCT CTC ACA GTG GAA TGG AGA GCA CGG  
 661/221 691/231  
 S E S A Q S K G G S G G S A Q L K K K L  
 TCT GAA TCT GCA CAG AGC AAG GGC GGC TCC GGT GGT AGC GCC CAG CTG AAG AAG AAA CTC  
 721/241 751/251  
 Q A L K K N A Q L K Q K L Q A L K K K  
 CAG GCT CTG AAA AAA AAG AAT GCC CAG CTC AAG CAG AAG CTG CAG GCC CTG AAG AAA AAG  
 781/261 811/271  
 L A Q G S G G S A G G G L N D I F E A Q  
 CTG GCT CAG GGT TCC GGT GGT TCC GCG GGT GGT GGT TTG AAC GAC ATC TTC GAA GCT CAG  
 841/281  
 K I E W H \* \*  
 AAA ATC GAA TGG CAC TAA TAA

Fig 32

SCANNED, # 14

Fig 33



SCANNED. # 14

ANTIGENIC  
PEPTIDE

BIOTYLATED  
MHC

BIOTYLATED  
ACCESSORY  
MOLECULE

135

BIOTYLATED  
ANTIBODY

136

BIOTYLATED  
ANTIBODY

137

NEUTRAVIDIN

138

CHITOSA  
GLYXIN P

132

BiOTN

GMI

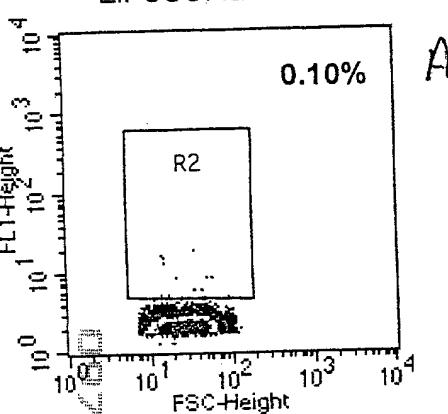
2APC  
MEMBRANE

130

131

Fig 34

LIPOSOME-GM1



LIPOSOME-GM1+CTB FITC

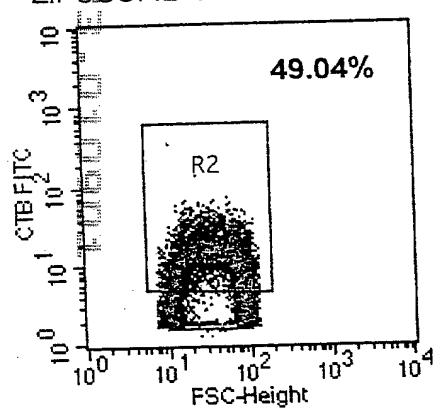
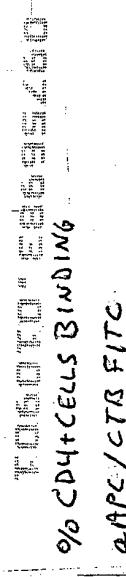


Fig 35

Key	Name	Parameter	Gate
1	lip.001	FL1-H	G1
2	lip.002	FL1-H	G1
3	lip.003	FL1-H	G1
4	lip.004	FL1-H	G1
5	lip.005	FL1-H	G1
6	lip.006	FL1-H	G1
7	lip.007	FL1-H	G1
8	lip.008	FL1-H	G1
9	lip.009	FL1-H	G1

p MOLES CTB FITC	GEO MEAN	%GATED M2
CONTROL-0	2.32	8.1
25pMOLES	2.25	6.1
50 pMOLES	3.17	27.2
100pMOLES	2.78	20.4
200pMOLES	3.07	27.5
400pMOLES	3.52	40.4
800pMOLES	5.59	73.0
2000pMOLES	7.57	82.4
5000pMOLES	20.82	97.1

Fig 36



EMPTY LIPOSOME

aAPC+RAFT+DR7\*/  
HAI /anti-CD28

Liposome+DR7/  
HAI

Fig 37

Fig 38 A

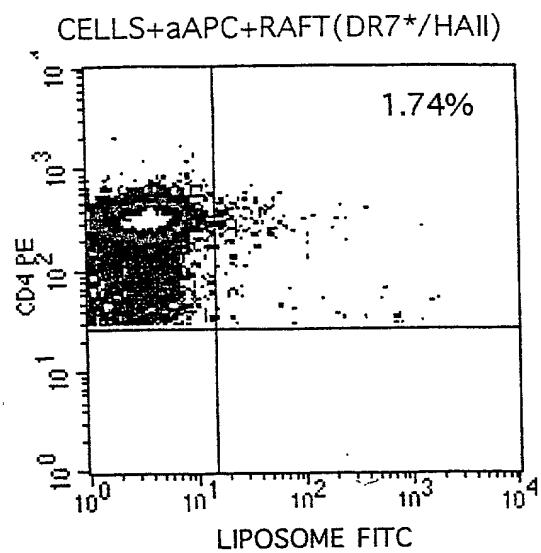
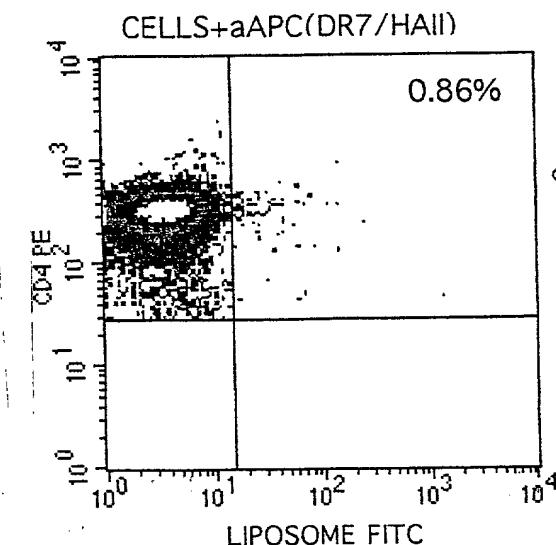


Fig  
38 A

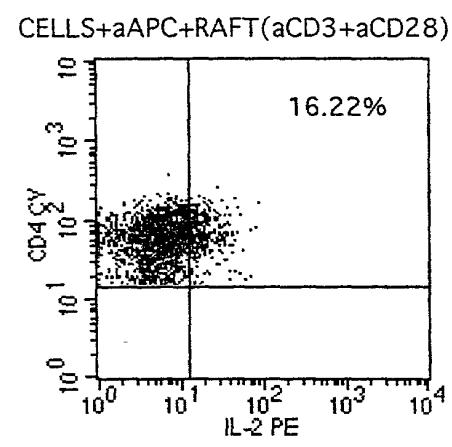
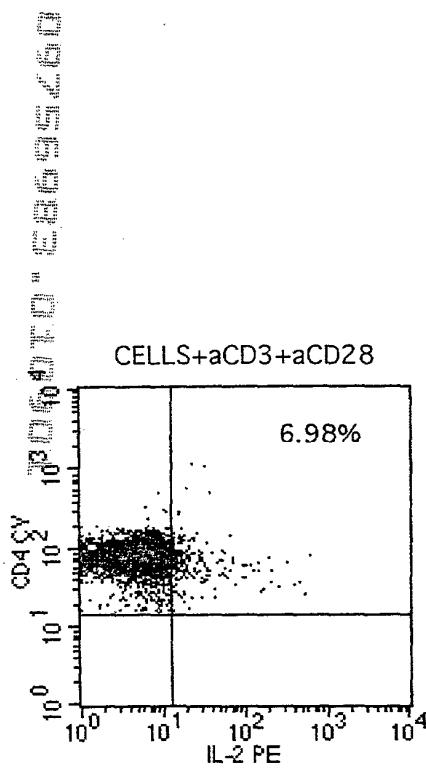
A

Fig 38 B

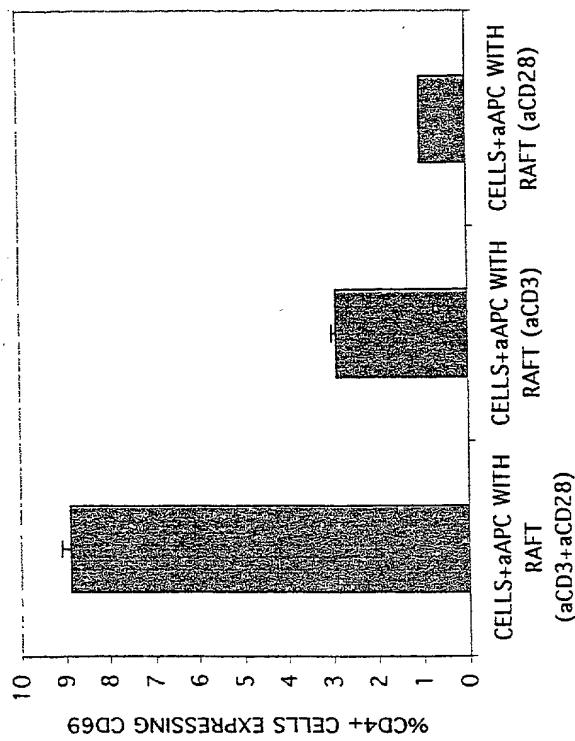
LIPOSOME FITC



B



CD69 EXPRESSION BY CD4-POSITIVE CELLS



IL-2 PRODUCTION BY CD4-POSITIVE CELLS

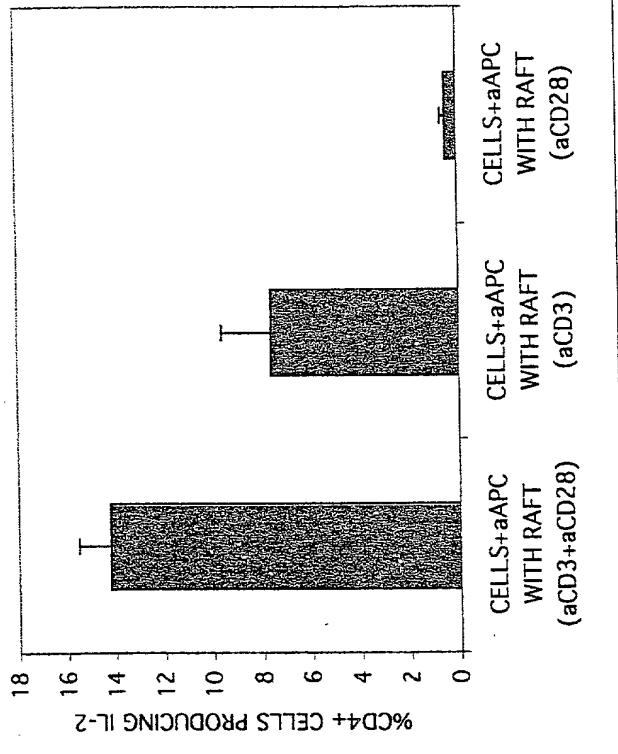


Fig 40

Fig 41

CD69 EXPRESSION BY CD4-POSITIVE CELLS

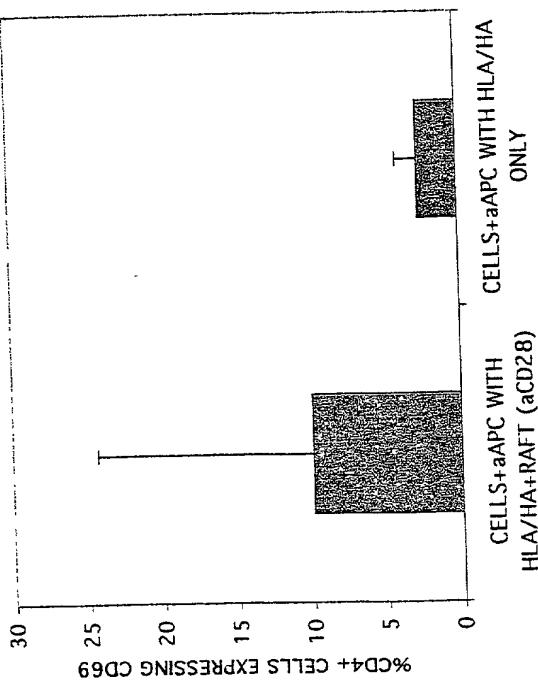


Fig 42

IL-2 PRODUCTION BY CD4-POSITIVE CELLS

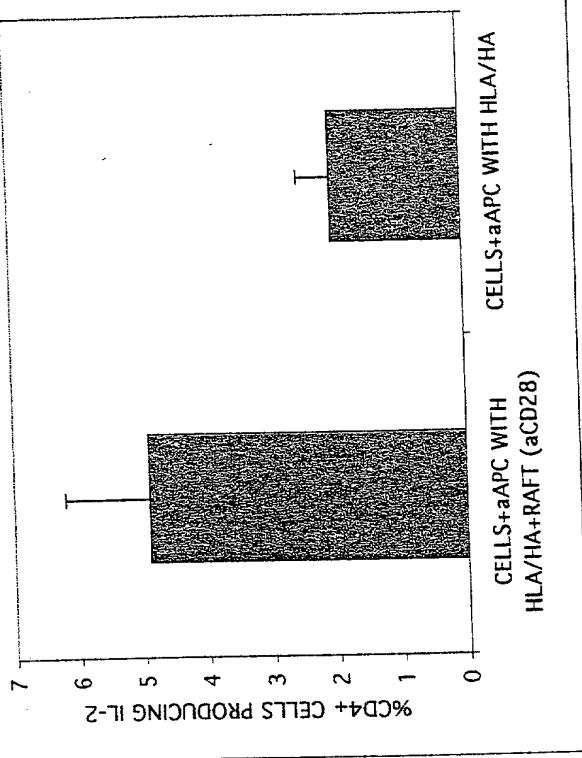


Fig 43